

Date: December 11, 2008

To: Honorable Minneapolis City Council Member Scott Benson

From: Citizen's Environmental Advisory Committee (CEAC)

RE: Recommendation on Use of Crumb Rubber Applications

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Based on the information provided in this memo, members of CEAC recommend:

- 1) The City Council support 2008 Kahn/Wagenius legislation studying the potential health risks of crumb rubber use as infill for turf and on playgrounds and urges such legislation include a comparative analysis of alternatives,
- 2) Before the City Council approves use of crumb rubber or other artificial turf applications, an applicant must demonstrate its environmental and health safety as compared to the alternatives,
- 3) The City Council consider developing an ordinance addressing appropriate applications citywide once the studies have been completed and the Public Health Advisory Committee has reviewed them, and
- 4) The City should evaluate existing applications of crumb rubber within the City, including children's exposure.

At your request, we reviewed concerns raised by state agencies, public health officials and environmental groups about potential adverse health and environmental effects that may result from the use of crumb rubber in synthetic turf, used on high school athletic fields, and as crumb rubber on playgrounds. We reviewed readily available literature and determined there is adequate support for concerns raised about health risks to children exposed to recycled tire crumb. However, much of the literature also concluded that there is insufficient data to establish if those concerns can be validated.

The concerns raised relate to use of a loose, crumbled product made from used tires and incorporated in synthetic turf as well as crumb rubber placed in playgrounds. Synthetic turf is made in layers of synthetic materials including green plastic blades that are attached to a backing and small particles called fill, often referred to as crumb rubber, that secure the blades. Children playing on tire crumb in play grounds under outdoor play structures as an alternative to sand or wood chips could potentially be exposed to toxic substances.

Health concerns are generally focused on crumb rubber because it is made from recycled tires containing chemicals that can cause cancer and other health problems if exposure occurs. There are three possible ways that children might be exposed: Accidentally ingesting small amounts of material from residue left on hands after playing on the fields,

breathing in dust and/or direct skin contact with the crumb rubber. Stormwater runoff is also a concern. As runoff from the now impervious surface is directed towards storm water systems, these chemicals could end up in surface water resources and cause adverse potential effects to aquatic wildlife.

Other issues of concern raised by the Sierra Club and others include additional health concerns: the need to water the synthetic turf because it gets so hot in the summer, enough to cause burns, water quality: potential environmental impacts of artificial turf located near rivers, lakes and aquifers from storm water systems or as ground water seepage and global warming: replacing living surfaces with non-living surfaces makes cities warmer than rural areas. Synthetic turf has been well documented to become significantly hotter than natural grass and even asphalt.

Thank you for taking the time to carefully consider the issues associated with the potential health and environmental effects related to the use of crumb rubber. Some available literature is informative about potential dangers and other literature suggested that the risk associated with the use of crumb rubber was very low; therefore, we believe the previously stated recommendations are appropriate.